Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (Previously Presented) A scanning microscope comprising:

a laser configured to generate light having a wavelength range;

an optical means for imaging light generated by the laser onto a specimen; and

an optical component positioned between the laser and the optical means,

wherein the light generated by the laser passes through the optical component, and

wherein the optical component is configured to increase said wavelength range of said light to a substantial portion of the entire visible wavelength range.

2. (Original) The scanning microscope as defined in Claim 1, wherein the optical component is photonic band-gap material.

3. (Original) The scanning microscope as defined in Claim 2, wherein the photonic band-gap material is configured as a light-guiding fiber.

4. (Original) The scanning microscope as defined in Claim 1, wherein the optical component is configured as a tapered light-guiding fiber.

5. (Original) The scanning microscope as defined in Claim 1, wherein the laser is a pulsed laser.

6. (Original) The scanning microscope as defined in Claim 1, wherein means for attenuating at least a portion of at least one wavelength of

the light emerging from the optical component is arranged after the optical component.

7. (Previously Presented) The scanning microscope as defined in Claim 6, wherein the means for attenuating comprises at least one of a spectrally selective filter, a dichroic filter, an acoustooptical tunable filter (AOTF), acoustooptical deflector (AOD), and an LCD attenuator.

8. (Original) The scanning microscope as defined in Claim 1, further comprising:

means for light output stabilization configured as a control loop.

9. (Previously Presented) A confocal scanning microscope comprising:

a laser configured to generate light having a wavelength range;

an optical means for imaging light generated by the laser onto a specimen;

a detector configured to receive light from the specimen; and

an optical component positioned between the laser and the optical means,

wherein the light generated by the laser passes through the optical component,

wherein the optical component is configured to increase said wavelength range of said light to a substantial portion of the entire visible wavelength range, and

wherein the optical component comprises an illumination pinhole through which the specimen is illuminated by the light emerging from the optical component.

10. (Original) The confocal scanning microscope as defined in Claim 9, wherein the optical component is photonic band-gap material.

11. (Original) The scanning microscope as defined in Claim 10, wherein the photonic band-gap material is configured as a light-guiding fiber.

12. (Original) The confocal scanning microscope as defined in Claim 11, wherein the light-guiding fiber defines an exit end which serves as the illumination pinhole.

13. (Original) The confocal scanning microscope as defined in Claim 9, wherein the optical component is configured as a tapered light-guiding fiber.

14. (Original) The confocal scanning microscope as defined in Claim 13, wherein the tapered light-guiding fiber defines an exit end which serves as the illumination pinhole.

15. (Original) The confocal scanning microscope as defined in Claim 9, wherein the laser is a pulsed laser.

16. (Original) The confocal scanning microscope as defined in Claim 9, wherein means for attenuating at least a portion of at least one wavelength of the light emerging from the optical component is arranged after the optical component.

17. (Previously Presented) The confocal scanning microscope as defined in Claim 16, wherein the means for attenuating comprises at least one of a spectrally selective filter, a dichroic filter, an acoustooptical tunable filter (AOTF), acoustooptical deflector (AOD), and an LCD attenuator.

18. (Original) The confocal scanning microscope as defined in Claim 9, further comprising: means for light output stabilization configured as a control loop.

Claims 19. – 27. (Canceled)

28. (Previously Presented) A scanning microscope comprising:

a pulsed laser configured to generate light having a wavelength range;

an optical means for imaging light generated by the pulsed laser onto a specimen; and

a light-guiding fiber, made of photonic band-gap material, positioned between the pulsed laser and the optical means,

wherein the light generated by the pulsed laser passes through the light-guiding fiber, and

wherein the light-guiding fiber is configured to increase said wavelength range of said light to a substantial portion of the entire visible wavelength range.

29. (Original) The scanning microscope as defined in Claim 28, wherein the scanning microscope is a confocal scanning microscope.

30. (Previously Presented) A scanning microscope comprising:

a pulsed laser configured to generate light having a wavelength range;

an optical means for imaging light generated by the pulsed laser onto a specimen;

an optical component positioned between the pulsed laser and the optical means, wherein the light generated by the pulsed laser passes through the optical component, and wherein the optical component is configured to increase said wavelength range of said light to a substantial portion of the entire visible wavelength range; and

means arranged after the optical component for attenuating at least a portion of at least one wavelength of the light emerging from the optical component.

31. (Original) The scanning microscope as defined in Claim 30, wherein the optical component is photonic band-gap material.

32. (Original) The scanning microscope as defined in Claim 31, wherein the photonic band-gap material is configured as a light-guiding fiber.

33. (Original) The scanning microscope as defined in Claim 30, wherein the optical component is configured as a tapered light-guiding fiber.

34. (Cancel).

35. (Cancel).

36. (Currently Amended) A scanning microscope comprising:

a laser configured to generate light having a wavelength range;

an imaging optics configured to image light generated by the laser onto a specimen; and

an optical component positioned between the laser and the ~~optical means~~ imaging optics,

wherein the light generated by the laser passes through the optical component, and

wherein the optical component is configured to increase said wavelength range of said light to a substantial portion of the entire visible wavelength range.